CURRICULUM VITAE

Farooq Hussain Bhat, PhD

Personal Information
Date of Birth: June 20, 1976
Sex: Male
Marital Status: Married
Languages Known: English, Urdu, Hindi, Kashmiri

Current Position

- Senior Assistant Professor School of Science Islamic University of Science and Technology, Awantipor, Kashmir, India.

Teaching Experience: 18 Years

Title of PhD Thesis

Structural, Electronic and Magnetic Properties of Transition Metal (Co) Doped Mangnites.

Supervisor: Prof. Manzoor A Malik, University of Kashmir

Co-Supervisor: Prof. Ravi Kumar, NIT, Hamirpur

Research Interests

- Condensed Matter Physics (Theory and Experimental)

Educational Qualifications

- Doctor of Philosophy (Ph.D), 2021, University of Kashmir, India.
- Master of Philosophy (M.Phil), 2004, Aligarh Muslim University (AMU), Aligarh India.
- National Eligibility Test (NET-JRF)) for Lecturer ship, 2001.
- GATE 2001
- Master of Science (M.Sc Physics with First Class), 2000,Aligarh Muslim University (AMU), Aligarh, India.
- Bachelor of Science (Honours in Physics with First Class), 1998 , Aligarh Muslim University (AMU), Aligarh, India.

  XII (AISSCE) 1994, Subjects: Physics, Chemistry, Maths and Biology (First Class)

  X (AISSE) 1992 (First Class)

Research Project Completed

The Study of Structural and Electronic Properties of Cobalt Doped $NdMnO_3$ Perovskite Manganite using X-ray Absorption Spectroscopy (XAS).
Funded by IUST.

Ongoing Research Projects

1. Effect of Swift Heavy Ion Irradiation on Structural, Electrical and Magnetic Properties of LaMn1−xCoxO3 ($0 \leq x \leq 0.5$) Thin Films
   Funded by **Inter University Accelerator Centre, New Delhi**
2. Study of Magnetic Properties of Perovskites using Artificial Intelligence
   Funded by **DST-SERB, India.**

Publications

- Study of spin glass state in Co doped $NdMnO_3$
  Communicated to **AIP Advances** (American Institute of Physics Publication) Impact Factor: 1.697, October 2023.

- Investigation of Structural, Magnetic, and Electronic properties of Co doped $NdMnO_3$.
  To be submitted to **J. Alloys and Compounds** (Impact factor 6.2) Nov.2023.

- Study of Canonical Spin Glass Behavior in Co doped $LaMnO_3$ F H Bhat, G A Khan, G Kataria, R Kumar, D Sahdev, M A Malik AIP Advances 11 (2), 025122 2021.

- XAS and XPS analysis of double magnetic transition, canonical spin glass behavior and magnetoresistance in $LaMn_{1-x}Co_xO_3$ ($0.1 \leq x \leq 0.5$) system
  F.H.Bhat, G.Anjum, Ravi Kumar, Manzoor A.Malik, R.J.Choudhary, D.K.Shukla
  https://doi.org/10.1016/j.ceramint.2020.11.018Ceramics International 47 (5), 6753-6763, 2021

- Study of magneto capacitance effect, exchange bias, XMCD and XAS in La0.8Bi0.2Fe0.7Mn0.3O3/LaNiO3/LaAlO3 multiferroic thin film
  G Anjum and F H Bhat 2019 J. Phys.: Condens. Matter 31 345001, 2019
  https://doi.org/10.1088/1361- 648X/ab229c

- The role of the elemental nature of A=3 nuclei in neutron rich nuclei A.A. Usmani, S. Abbas, U. Rehman, F HBhat , International Journal of Modern Physics E Vol. 27, No. 07, 1850060 (2018) https://doi.org/10.1142/S021830131850060X

- Thin film growth of multiferroic La0.8Bi0.2Fe0.7Mn0.3O3 on LaNiO3 using RF sputtering and its characterization
  G. Anjum, F H Bhat, Ravi Kumar
  Materials Letters Volume 185, 15 December 2016, Pages 112-114; doi:10.1016/j.matlet.2016.05.088

- Isomeric state in 53Co: A mean field analysis, Phys. Rev. C, 2009.
  S.K. Patra, F.H. Bhat, R.N. Panda, P. Arumugam, and Raj K. Gupta,

Awards and Fellowships

- Got the second prize in oral presentation of a paper “Kaon Photo-production in Quark Model"at the Deptt. of Physics, Aligarh Muslim University, in commemoration of Science Day celebrations in Feb.2004.

- Senior Research Fellow 2004-05, Council of Scientific and Industrial Research (CSIR), India.
- Junior Research Fellow 2002-04, Council of Scientific and Industrial Research (CSIR), India.

- Qualified Graduate Aptitude Test for Engineering in Physics 2001, conducted by Indian Institute of Technology (Kanpur), India.

- University Post- Graduate Merit Scholarship 1998-2000, Aligarh Muslim University, India.

Membership of National/International Society

- American Physical Society Member from 2016

Papers Presented in Conferences

- Paper titled "Study of Canonical Spin Glass Behavior in Co doped $LaMnO_3$" was presented in 65th virtual international conference on Magnetism and Magnetic Materials, Nov.2-6, 2020.
- Paper titled "Cobalt Induced Modification in Magnetic Properties of NdMn 1-x Co x O 3 ($0.2 \leq x \leq 0.3$)" was presented at International Conference on Physics, Society and Technology-Jan. 17-19, 2019 (ICPST-2019).
- Paper titled "Magnetic Properties of $LaMn_{1-x}Co_xO_3$ (x = 0.3 – 0.5)" was presented at International Conference on Superconductivity and Magnetism (ICSM) held in April at Fethiye, Turkey, 2016.
- Presented a paper titled "Study of Electronic Structure of $LaMn_{0.5}Co_{0.5}O_3$ using X-ray Absorption Spectroscopy (XAS)" in Science Congress held at University of Kashmir, J&K, India from Sept. 12-14, 2015.
- Paper titled "Magnetic properties of $LaMn_{1-x}Co_xO_3$(x = 0.1-0.2)" presented at a National Interdisciplinary Science Conference on Recent Research Trends in Chemical and Environmental Sciences held at SP College, Srinagar, J&K, India from August 18-19th, 2015.
- Paper titled "Electronic structure with X-ray absorption spectroscopy using CTM4XAS code" presented in two day National Seminar held at Amar Singh College Srinagar, June 2014.
- Attended National Conference on Recent Trends in Material Science Research from Sept. 3-5, 2012 held at National Institute of Technology, Srinagar, India, as one of the authorof the paper entitled "La0.8Bi0.2Fe0.7Mn0.3O3 multiferroic thin film grown on LaAlO3 substrate using RF sputtering".
- Attended National Conference on NanoMaterials and Devices Oct. 3-5, 2013 held at National Institute of Technology, Srinagar, J&K, India, as one of the author of the paper entitled "Study of modification in magnetic properties of La0.8Bi0.2Fe0.7Mn0.3O3 thin film using NEXAFS and XMCD".
- Presented Research paper entitled QCD motivated three-body force and light nuclei in Department of Atomic Energy and Board of Research in Nuclear Sciences (India) sponsored symposium at Banarus Hindu University, India in December 2004.

Organizer/Coordinator Schools, Workshops, and Faculty Development Programmes

- Coordinator Two days National Workshop- "Nanoscience – Opportunities and Challenges". Dated: 4th and 5th Sept., 2018.

- Convener One Week Faculty Development Program On Emerging Trends in Physical, Chemical and Mathematical Sciences from 14th-20th Febuary, 2019.

- Course Director One week Summer School on Quantum Mechanics from 29th July, 2019.

Workshops and Schools Attended

- Attended one week online wiki scientist course conducted by American Physical Society in January 2021.
- Attended online one week workshop on "Problem Solving with SCILAB (ICT71)", conducted by NITTTR from 27/07/2020.
- Attended one week "Summer School on Qauntum Mechanics" conducted by Department of Physics, IUST, from 29th July, 2019.
- Attended one week STC on "Machine Learning using Python" at IUST from July 01, 2019.
- Attended one week STC on "Materials Characterization Techniques" at NIT Srinagar from June 24th, 2019.
- Attended one week faculty development program On "Emerging Trends in Physical, Chemical and Mathematical Sciences from 14th -20th FEBUARY, 2019.
- Attended two days National Workshop- "Nanoscience – Opportunities and Challenges". Dated: 4th and 5th Sept., 2018.
- Attended Winter School at JNU during Feb.-March 2016.
- Six days Teachers Training Programme on Phoenix/ExpEyes using Python from Oct.14-20 , 2013.
- Attended Refresher course on Quantum Mechanics Nov.28- Dec.12, 2013.
- Attended Winter School on Chemistry and Physics of Solids, 6- 12th of Nov.2011, at Bilkent University, Ankara,Turkey
- Attended the DAE-BRNS sponsored workshop on Hadron Physics from 18 Feb. -23 Feb. 2008 at Aligarh Muslim University.
- Attended the University Grants Commission, India, sponsored refresher course on "Concepts of Physics" in Oct.2006 at Aligarh Muslim University and passed with an A grade.

(Farooq Hussain Bhat, PhD)